

GRADES AND STANDARDS FOR
CUT FLOWER CROPS

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Introduction
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This is a compendium of information available concerning grades and standards for cut flower crops. Due to the increased interest by the industry in grading, it was deemed advisable to bring together some of the more important information of practical use to growers who are contemplating the adoption of standard grades.

The material for this compendium has been gathered from several sources. The general information concerning the advantages of grading and the characteristics of acceptable grading standards is largely from a report of the Society of American Florists committee on grading and was prepared by Harold Brookins, Orchard Park, New York. The S.A.F. standard grade requirements for cut flower crops were obtained from the society as a result of work by its committee on grades and standards. The information on proposed US grades for carnations, standard chrysanthemums and pompon chrysanthemums was obtained from Purdue University, Research Mimeo. HO-79-1 by F. C. Gaylord and C. E. Hoxsie published in 1958 entitled "Market Grades for Ornamentals, Chrysanthemums and Carnations." The bibliography concerning grading was compiled by the 1960 committee on grades and standards for horticultural specialty crops of the American Society for Horticultural Science.

It is hoped that this compilation will be of help to those interested in standard grades for their products.

Why Use Grading

Grading is not new. All growers practice grading of some kind, for grading is only sorting into a series of qualities or sizes^{1/}.

^{1/} It should be pointed out that quality and size are separate and distinct. Carnations 2, 2½ and 3 inches in diameter, of different size, may all be born on strong stems, be free of disease and insect injury, malformations, and also have similar keeping qualities. Thus they are all of good quality.

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In every market some growers enjoy a preferred position because of a reputation for quality. A considerable part of that reputation stems from their ability to maintain precise grading standards year after year.

Standard Grades are offered as a help to growers who want to improve the marketability of their merchandise. Grading standards help to eliminate the human element in grading by providing an inflexible standard.

The aim of all grading should be to make the product easier to sell at all levels.

The emphasis of grading in the past few years has produced an improvement in the character of the grading done by individual growers in various parts of the country. Progress toward standardization of grades, however, has been slow.

Practically all other commodities including most perishables are marketed under standard grades. Extra profits come invariably to the producer who uses standard grades in the marketing of his products. There is evidence that the adoption of standard grades would bring similar benefits to all branches of our industry. Some of these benefits are enumerated below.

FOR THE GROWERS

Standard grades will assist in the evaluation of production for the comparison of crops and growing practices from season to season.

They will furnish a more accurate evaluation of markets to determine what grades are most desired and which grades will bring the greatest return in dollars per square foot.

They will furnish a standard for more accurate grading practices by controlling the chances for human error.

They encourage uniformity in grading from season to season and year to year which produces a reputation of dependability.

It will help to bring growers to the realization that the largest size is not always the most profitable size to produce.

It will bring better prices to the growers. The buyer of ungraded flowers values them at the value of the poorest in the bunch, not the best.

FOR THE WHOLESALER

Standard grades will effect the saving of time. They will eliminate the need for separate evaluation of each bunch as the grade indicators become recognized as indicators of quality and size.

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They will enable salesmen to make telephone offerings of material and grade without confusion. The grade name will come to mean the same thing to both the buyer and the seller.

The sale can be completed in less time, with savings in both wages and telephone toll.

Wholesalers will be able to advise their growers as to the most desired grades in their market. If grade is uniform, costly arguments can be avoided.

FOR THE RETAILER

Uniform grades will bring uniformity within the bunch. They will enable the retailer to sell all the flowers in any package with confidence.

They will allow the retailer to purchase the grade best suited for his purposes.

They will save time in purchase since inspection of each bunch will not be needed.

What Are Good Grading Standards?

Acceptable grading standards must have these characteristics:

- 1 - They must be capable of being reduced to writing
- 2 - They must be positive
- 3 - They must be based on universally accepted scales of measurement such as inches, ounces, pounds, numbers or combinations of these.
- 4 - They must have categories enough to adequately classify the material commonly dealt with in the florist trade.
- 5 - Standards must remain inflexible from season to season and year to year.
- 6 - They must use a nomenclature which will not depreciate the value of the merchandise in the eyes of the consumer.

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SOCIETY OF AMERICAN FLORISTS
 Sheraton-Park Hotel
 Washington 8, D. C.

SAF Standard Grades
 Approved 6/2/53

CARNATIONS

Material to be marketed under SAF Standard Grades shall have reasonably straight stems, uniform, clean foliage free from disease and insect injury. The Calyx shall not be split and stems shall have been disbudded and suckered. Foliage shall be removed from the lower 1/3 of the stems.

Each bunch shall contain the indicated number of stems. Only one color or variety shall be included in a bunch of graded material.

Each bunch shall bear a label of the specified color, imprinted SAF Grade SPECIAL, SAF Grade FANCY, SAF Grade EXTRA, or SAF Grade FIRST, as the case may be, together with the name of the producer.

In addition, graded material shall conform to the following specifications:

| Grade Name | Label Color | Weight per flower (ounces) | | Minimum Length (inches) | Stems per bunch (number) |
|---------------|----------------|----------------------------------|-----------|-------------------------------|--------------------------------|
| | | Over | Including | | |
| SPECIAL | Blue | 1 | | 21 | 25 |
| FANCY | Red | 3/4 | - 1 | 18 | 25 |
| EXTRA | Green | 1/2 | - 3/4 | 15 | 25 |
| FIRST | Yellow | 1/4 | - 1/2 | 12 | 25 |

UTILITY The term Utility is not a grade within the meaning of these standards. Material which does not grade because of crooked stems, foliage injury, abnormal growth, split or mended calyces, may be marketed under the designation UTILITY (White Label).

UNCLASSIFIED The term Unclassified is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

Addenda to SAF STANDARD GRADES

CARNATIONS

If it is desired to market carnations with foliage attached to the stems, the following weights per bloom shall be used.

Special grade, over 1-1/8 oz.; Fancy grade, over 7/8 oz. and including 1-1/8 oz.; Extra grade, over 5/8 oz. and including 7/8 oz.; First grade, over 3/8 oz. and including 5/8 oz.

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SOCIETY OF AMERICAN FLORISTS
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 Washington 8, D.C.

S.A.F. STANDARD GRADES
 Approved 7/26/54

P O M P O N C H R Y S A N T H E M U M S

Materials to be marketed under S.A.F. Standard Grades shall have reasonably straight stems, uniform, clean foliage free from insect and disease injury. Foliage shall be removed from the lower 1/3 of the stem.

Each bunch shall contain the indicated number of stems. Only one color or variety shall be included in a bunch of graded material.

Each bunch shall bear a label of the specified color, imprinted S.A.F. Grade SPECIAL, S.A.F. Grade FANCY, S.A.F. Grade EXTRA or S.A.F. Grade FIRST, as the case may be, together with the name of the producer.

In addition, graded materials shall conform to the following specifications:

| Grade Name | Label Color | Weight per Spray (ounces) | Stem Length | | Stems per Bunch (Number) |
|---------------|----------------|---------------------------------|-------------|------|--------------------------------|
| | | | Min. | Max. | |
| | | | (Inches) | | |
| | | Over - Including | | | |
| SPECIAL | Blue | 2 - 4 | 24 | - 36 | 4 |
| FANCY | Red | 1½ - 2 | 20 | - 30 | 6 |
| EXTRA | Green | 1 - 1½ | 20 | - 30 | 6 |
| FIRST | Yellow | ½ - 1 | 12 | - 20 | 6 |

UTILITY The term Utility is not a grade within the meaning of these standards. Materials which do not grade because of crooked stems, foliage injury abnormal growth or other failure to meet the above specifications may be marketed under the designation Utility (White label).

UNCLASSIFIED The term Unclassified is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

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Society of American Florists
 Sheraton-Park Hotel
 Washington 8, D. C.

SAF Standard Grades
 Approved: 7-26-54

STANDARD CHRYSANTHEMUMS

Material to be marketed under SAF Standard Grades shall have reasonably straight stems, uniform, clean foliage free from insect and disease injury. The flower formation shall be typical of the variety. The stems shall have been disbudded and suckered. Foliage shall be removed from the lower $\frac{1}{3}$ of the stem. Standard Chrysanthemums shall be marketed in multiples of twelve. Only one color or variety shall be included in a unit of graded material.

Each bunch shall bear a label of the specified color, imprinted SAF Grade SPECIAL, SAF Grade FANCY, SAF Grade EXTRA or SAF Grade FIRST, as the case may be, together with the name of the producer.

In addition, graded material shall conform to the following specifications:

| <u>Grade Name</u> | <u>Label Color</u> | <u>Weight per Flower (Ounces)</u> over - including | | <u>Stem Length</u> Min. Max. (Inches) | | <u>Stems per Unit of Sale Number</u> |
|-------------------|--------------------|---|------------------|--|------|--------------------------------------|
| | | | | | | |
| SPECIAL | Blue | 3 | - $4\frac{1}{2}$ | 30 | - 42 | 12 |
| FANCY | Red | 2 | - 3 | 24 | - 36 | 12 |
| EXTRA | Green | $1\frac{1}{2}$ | - 2 | 24 | - 36 | 12 |
| FIRST | Yellow | 1 | - $1\frac{1}{2}$ | 18 | - 30 | 12 |

UTILITY The term "Utility" is not a grade within the meaning of these standards. Material which does not grade because of crooked stems, foliage injury, abnormal growth or other failure to meet the above specifications may be marketed under the designation Utility (White Label).

UNCLASSIFIED The term "Unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

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SOCIETY OF AMERICAN FLORISTS
 Sheraton-Park Hotel
 Washington 8, D. C.

SAF Standard Grades
 Approved 6/2/53

SNAP DRAGONS

Material to be marketed under SAF Standard Grades shall have reasonably straight stems, uniform, clean foliage free from insect and disease injury. The foliage shall be removed from the lower 1/3 of the stems.

Each bunch shall contain the indicated numbers of stems. Only one color or variety shall be included in a bunch of graded material.

Each bunch shall bear a label of the specified color, imprinted SAF Grade SPECIAL, SAF Grade FANCY, SAF Grade EXTRA or SAF Grade FIRST, as the case may be, together with the name of the producer.

In addition, graded material shall conform to the following specifications:

| GRADE Name | Label Color | WEIGHT per Spike (Ounces) over - including | Minimum Open Flowers per Stem (Number) | Minimum Stem Length (Inches) | Stems per Bunch (Number) |
|---------------|----------------|---|--|------------------------------------|--------------------------------|
| Special | Blue | $2\frac{1}{2}$ - 4 | 15 | 36 | 12 |
| Fancy | Red | $1\frac{1}{2}$ - $2\frac{1}{2}$ | 12 | 30 | 12 |
| Extra | Green | 1 - $1\frac{1}{2}$ | 9 | 24 | 12 |
| First | Yellow | $\frac{1}{2}$ - 1 | 6 | 18 | 12 |

UTILITY The term Utility is not a grade within the meaning of these standards. Material which does not grade because of crooked stems, foliage injury or abnormal growth may be marketed under the designation UTILITY (White Label).

UNCLASSIFIED The term Unclassified is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

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SOCIETY OF AMERICAN FLORISTS
 Sheraton-Park Hotel
 Washington 8, D. C.

S.A.F. Standard Grades
 Approved 7-20-56

GLADIOLUS

All gladiolus graded to this standard must conform to the measured requirements, and in addition, stems shall be reasonably straight; spikes and foliage free of disease or disfiguring physical defect, and shall be normal weight, conformation and bud count for the particular variety. A tolerance of one grade higher in head length only is permissible; all other variations are prohibited.

| <u>Grade</u> <u>Name</u> | <u>Label</u> <u>Color</u> | <u>Head Length</u> | <u>Over-all</u> <u>Length</u> |
|-----------------------------|------------------------------|----------------------|----------------------------------|
| Special | Blue | 17-3/4" - No maximum | 44" - No maximum |
| Fancy | Red | 14-3/4" - 17-3/4" | 39" - 44" |
| Extra | Green | 11-3/4" - 14-3/4" | 34" - 39" |
| First | Yellow | 8-1/2" - 11-3/4" | 28" - 34" |

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SAF Standard Grades
Society of American Florists
Sheraton-Park Hotel, Washington 8, D. C.

IRIS

Material to be marketed under SAF Standard Grades shall have reasonably straight stems, uniform, clean foliage free from insect and disease injury. Iris may be harvested either in open flower or with bud showing color. The foliage shall not extend more than 1 inch above the tip of the flower. Foliage of Iris in graded material shall not have been reduced by trimming.

Each bunch shall contain the indicated number of stems. Only one color or variety shall be included in a bunch of graded material.

Each bunch shall bear a label of the specified color, imprinted SAF Grade SPECIAL, SAF Grade FANCY, SAF Grade EXTRA, or SAF Grade FIRST, as the case may be, together with the name of the producer.

In addition, graded material shall conform to the following specifications:

| <u>Grade</u> <u>Name</u> | <u>Label</u> <u>Color</u> | <u>Weight per Flower</u> <u>(Ounces)</u> | <u>Stem Length Min.</u> <u>(Inches)</u> | <u>Stems per Bunch</u> <u>(Number)</u> |
|-----------------------------|------------------------------|---|--|---|
| | | over - including | | |
| SPECIAL | Blue | 2 | 28 | 12 |
| FANCY | Red | 1½ - 2 | 24 | 12 |
| EXTRA | Green | 1 - 1½ | 24 | 12 |
| FIRST | Yellow | ½ - 1 | 18 | 12 |

UTILITY The term "Utility" is not a grade within the meaning of these standards. Material which does not grade because of crooked stems, foliage injury, abnormal growth or other failure to meet the above specifications may be marketed under the designation Utility (White Label).

UNCLASSIFIED The term "Unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

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SAF Standard Grades
Society of American Florists
Sheraton-Park Hotel, Washington 8, D. C.

STOCKS

Material to be marketed under SAF Standard Grades shall have reasonably straight stems, uniform, clean foliage free from insect and disease injury. Foliage shall be removed from lower 1/3 of the stem.

Each bunch shall contain the indicated number of stems. Only one color or variety shall be included in a bunch of graded material.

Each bunch shall bear a label of the specified color, imprinted SAF Grade SPECIAL, SAF Grade FANCY, SAF Grade EXTRA or SAF Grade FIRST, as the case may be, together with the name of the producer.

In addition, graded material shall conform to the following specifications:

| <u>Grade Name</u> | <u>Label Color</u> | <u>Weight per Spray (Ounces)</u> | <u>No. Florets Open</u> | <u>Stem Length Min. (Inches)</u> | <u>Stems per Bunch</u> |
|-------------------|--------------------|----------------------------------|-------------------------|----------------------------------|------------------------|
| | | over - including | | | |
| SPECIAL | Blue | 3 | 20 | | 6 |
| FANCY | Red | 2 - 3 | 15 | | 6 |
| EXTRA | Green | 1 - 2 | 10 | | 6 |
| FIRST | Yellow | $\frac{1}{2}$ - 1 | 5 | | 6 |

UTILITY The term "Utility" is not a grade within the meaning of these standards. Material which does not grade because of crooked stems, foliage injury, abnormal growth, or other failure to meet the above specifications may be marketed under the designation Utility (White Label).

UNCLASSIFIED The term "Unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

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PROPOSED U.S. CUT CARNATION GRADES

U.S. Fancy Grade shall consist of carnations of similar varietal characteristics.¹ Flowers shall be fresh² fairly tight³ symmetrical; stems shall be fresh, free from buds or suckers on upper 2/3 of stem, and both flowers and stems shall be free from decay, and from damage⁴ caused by dirt or other foreign materials, discoloration, moisture, disease, insects, mechanical or other means. Flowers shall be not less than 2 3/4 inches in diameter⁵. Stems shall be fairly straight⁶ and not less than 5/30 of an inch in diameter or rigid enough to hold flower in a fairly upright position and not less than 22 inches in length⁷.

Tolerance - A total tolerance of 5 percent by count in any lot, shall be allowed for flowers that fail to meet the requirements of both size of flower and diameter of stem and included therein not more than 4 percent for either size of flower or length of stem. A defect tolerance, of 4/5 percent by count shall also be allowed, and provided further, that any individual bunch may have double the tolerance if all other bunches in the lot average within the tolerance.

U.S. Extra Fancy carnations shall consist of carnations with extra long stems (28 inches and up) and extra large flowers (3 inches and up), providing they meet all the other qualifications of the Fancy Grade.

U.S. No. 1 Grade shall consist of carnations of similar varietal characteristics, the flowers shall be symmetrical, fresh, fairly tight, free from decay, and from damage caused by dirt or other foreign materials, discoloration, moisture, disease, insects, mechanical or other means. Flowers shall be not less than 2 1/4 inches in diameter.

Stems shall be fairly straight, free from buds or suckers on top 2/3 portion of the stem; and not less than 5/32 of an inch in diameter or rigid enough to hold flowers in fairly upright position; foliage and stems shall be clean and green; stem length shall be not less than 16 inches.

When carnations are bunched, 25 flowers shall be considered as a standard bunch.

Tolerance - Incident to proper grading and handling, not more than 5 percent by count, of any lot shall fail to meet the requirements of the grade and not less than 10 percent shall exceed the tolerance in any bunch.

Definitions

¹Similar varietal characteristics means that the flowers are similar in color and shaped.

²Fresh means that the flowers, stems and leaves are bright, not badly wilted, limp or flabby.

³Fairly tight means that petals near the center of the flower are tight or unopened, and the outside petals are fully expanded horizontally.

⁴Damage means any injury or defect which noticeably affects the appearance or shipping quality of the carnations.

⁵Diameter means the greatest distance, as measured through the center of the flower or stem. The stem is measured between nodes at right angles to a line running from the bottom of the stem to the center of the flower.

⁶Fairly straight means that the stem is of normal growth and not more than very slightly curved or crooked.

⁷Length means the distance from the bottom of the stem to the top of the flower.

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U.S. Design Grade shall consist of carnations that do not meet the grade specifications of U.S. Fancy or No. 1 and have flowers that are fairly tight, free from calyx splits or other damage and with stems not less than 10 inches.

Tolerance. Incident to proper grading and handling, not more than 5 percent of any lot shall fail to meet the grade specifications, and not more than 10 percent in any bunch.

Unclassified - Unclassified consists of carnations which have not been classified in accordance with any of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show no definite grade has been assigned to the carnations.

Suggested Color Identification

Color identification is not a part of grades, but since in common usage purple usually represents the very best; blue, premium quality; and red, No. 1 or 3rd best, the use of these colors on tags, bands, paper wrapping or packages in addition to grade mark, would make grade determination in commercial channels an easy matter. Likewise yellow for design grade might be highly desirable.

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PROPOSED U.S. GRADES FOR POMPONS CHRYSANTHEMUMS

U.S. Fancy Pompons shall consist of pompons of similar varietal characteristics¹. Flowers shall be fresh², symmetrical³, free from damage⁴ caused by dirt or other foreign material, discoloration, moisture, disease, insects, mechanical or other means with not less than five fairly tight⁵ top flowers per stem. Stems shall be fairly straight⁶ with a stem diameter⁷ not less than $7/32$ of an inch. The stem length⁸ shall be not less than 24 inches. The foliage shall be clean, bright, and green with not less than 8 or more than 10 inches at bottom of stem defoliated. When bunched not less than 5 stems and 25 fairly tight top flowers per bunch.

U.S. Extra Fancy Pompons shall consist of pompons that meet all qualifications of Fancy and in addition have stems not less than 30 inches long, with not less than 5 stems per bunch with 30 open top flowers with fairly tight centers.

Tolerance - Incident to proper grading and handling not more than 5 percent by count of the pompons in any lot may fail to meet specifications of this grade and not more than 10 per cent in any bunch.

U.S. No. 1 Pompons shall consist of pompons of the same varietal characteristics. Flowers shall be fresh, well formed, free from decay and damage caused by dirt or other foreign material, discoloration, moisture, disease, insects, mechanical or other means with not less than 4 fairly tight flowers per stem. Stems shall be fairly straight with a stem diameter not less than $5/32$ of an inch or strong enough to support the flowers in a fairly upright position. The stem length shall not be less than 20 inches. The foliage and stems shall be clean, bright, green and defoliated at bottom of the stem, not less than 8 inches and not more than 12 inches.

When bunched there shall be not less than 20 fairly tight top flowers and 5 stems per bunch.

Definitions

¹Similar Varietal Characteristics means that the flowers are similar in color and shape.

²Fresh means that the flowers and leaves are bright, not badly wilted, limp or flabby.

³Symmetrical means flowers are normal and of good round shape and of good substance.

⁴Damage means any injury or defect which noticeably affects the appearance or shipping quality of the pompons.

⁵Fairly tight means that the center petals shall not be fully opened and have tight appearance. In daisy and anemone type pompons, the central disc florlets shall show green on the inside of disc florlets.

⁶Fairly Straight means that the stem is of normal growth and not more than slightly curved or crooked.

⁷Diameter means the greatest distance across the stem when measured through the center of the stem at right angles to a line running from the bottom of the stem to the center of the flower. Stems shall be measured half-way between the bottom and top.

⁸Length means the greatest distance between the end of the stem and the top of the flower.

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Tolerance - Incident to proper grading and handling not more than 5 per cent of any lot may fail to meet the specifications of the grade and not more than 10 per cent in any bunch.

U.S. Design grade shall consist of pompons of the same varietal characteristics, that fail to meet requirements of either fancy or No. 1, with flowers fresh, fairly tight and free from damage of any kind, with stems not less than 15 inches.

Tolerance - Incident to proper grading and handling not less than 10 per cent, by count, shall fail to meet the specifications of this grade.

Unclassified - Unclassified consists of pompons which have not been classified in accordance with any of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been assigned to the pompons.

Suggested Color Identification

Color identification is not a part of grades, but since in common usage purple usually represents the very top, blue premium quality and red No. 1 quality or third best. The use of these colors on tags, bands, paper wrapping or packages would make grade determination in commercial channels an easy matter. Likewise, yellow for design might be desirable.

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PROPOSED U.S. STANDARD CHRYSANTHEMUM GRADES

U.S. Fancy Grade shall consist of standard¹ chrysanthemums of similar varietal characteristics². Flowers shall be fresh³, symmetrical, fairly tight⁴ free from decay and from damage⁵ caused by dirt or other foreign material, discoloration, moisture, disease, insects, mechanical or other means. Flowers shall be not less than 5 inches in diameter across the disc flowers and exclusive of the ray petals⁶ stems shall be fairly straight⁷ free from buds and suckers, and not less than 8/32 of an inch in diameter or rigid enough to hold the flowers in fairly upright position. The stem length⁸ shall be not less than 30 inches. The foliage shall be clean, bright, green, and stripped not less than 16 inches, and not more than 14 inches from the bottom end of the stem.

U.S. Extra Fancy Grade chrysanthemums shall consist of chrysanthemums that have extra stem lengths (36 inches and up) extra size of flower (6 inches and up) and in addition, meet all the other qualifications for Fancy Grade.

Tolerance - Incident to proper grading and handling not more than 5 percent, by count, of the chrysanthemums in any lot may fail to meet the requirements of this grade and not more than 10 percent in any bunch.

U.S. No. 1 Grade shall consist of standard chrysanthemums of similar varietal characteristics. The flowers shall be fresh, well formed, fairly tight, free from damage caused by dirt or other foreign material, discoloration, moisture disease, insects, mechanical or other means. Flowers shall be not less than 4 inches in diameter. The foliage shall be clean, bright, green, and stripped not less than 8 inches and not more than 12 inches from the bottom end of the stem.

The stems shall be fairly straight, free from buds and suckers, not less than 7/32 of an inch in diameter or rigid enough to hold the flower in fairly upright position. The stem length shall be not less than 24 inches.

Tolerance - Incident to proper grading and handling in any lot not more than 5 percent by count shall fail to meet the specifications of the grade and not more than 10 percent in any bunch.

Definitions

¹Standard means chrysanthemums with one flower per stem.

²Similar varietal characteristics means that the flowers are similar in color and form.

³Fresh means that the flowers and leaves are bright, clean, and not badly wilted, limp or flabby.

⁴Fairly tight means that at least one (1) inch of the center petals are tight or unopened and do not expose the center of the flower.

⁵Damage means any injury or defect which noticeably affects the appearance or shipping quality of the chrysanthemums.

⁶Diameter means the greatest distance measured across the flower or stem at right angles to a line running from the bottom of the stem to the center of the flower. Stem diameter shall be measured between the nodes half way between end of the flower.

⁷Fairly straight means that the stem is of normal growth and is not more than very slightly curved or crooked.

⁸Length means the greatest distance between the end of the stem and the top of the flower.

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U.S. Design Grade shall consist of chrysanthemums of similar varietal characteristics that do not meet the specifications of extra Fancy, Fancy, or No. 1 grade and have flowers that are fairly tight and free from serious damage of any kind. Stems shall be not less than 18 inches in length and strong enough to support flower in fairly upright position.

Tolerance - Incident to proper grading and handling, not more than 10 percent of any bunch or lot shall fail to meet the grade specifications.

Suggested Color Identifications

Color identification is not a part of grades, but since in common usage purple usually represents the very best; blue, premium quality, and red, No. 1 or 3rd best. The use of these colors on tags, bands, paper wrapping or packages in addition to grade mark, would make grade determination in commercial channels an easy matter. Likewise, yellow for design grade might be highly desirable.

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Grades and Standards of Horticultural Specialty Crops

Compiled by 1960 A.S.H.S. Committee on Grades and Standards

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